

PHENIX WEEKLY PLANNING



9/3/2009

Don Lynch

This Week 8/31-9/4

Task	Start Date	End Date
Erect PC1 repair tool	Done	Done
Assemble Dummy $\frac{1}{2}$ octant and test with tilt table and Burn-in test stand field fit	Done	Done
Receive complete RPC3 N base, pitch support, lifting fixtures & $\frac{1}{2}$ octant 7&8 vertical support	Done	Done
Assemble HV, experimental gas and N2 gas distribution and install tent	6/17	9/4
Evaluate Gap 5 grout at Factory	Done	Done
Move MuID plumbing rack on pedestal away From gap 5	In Progress	9/4
Survey tapped holes on MuID5 steel and survey east and west RPC3 N support bases	In Progress	9/4
Drill and tap MuID gap 5 steel top and north	In Progress	9/4

TECHNICAL SUPPORT 2009

Gap 5 grout test pour: successful



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PC1 East Repair Support Fixture

9/3/2009

Next Week 9/7-9/11

Task

Start Date

End Date

TECHNICAL SUPPORT 2009

Analyze and test EC dumbwaiter

In Progress

9/11

MuTr decapacitations & MuTr FEE trouble-Shooting in MMS Sta 1&3

In Progress

10/15

Install Station 1 MuTrigger FEE air & water and test

In Progress

9/11

Install MuTrigger FEE station 2/3 FEE's & Electronics & connect cables

In Progress

9/25

Disassemble DC/PC1 cables & piping

In Progress

9/10

Prep RPC3 N racks for installation

In Progress

9/30

Simulated RPC installation at RPC Factory (practice/tests) test all installation parts: base, locking/install, survey, cradle

In Progress

9/11

Labor Day Holiday - no work

9/7

9/7

Install MuTrigger FEE station 2/3 air & water plumbing and test

9/14

10/9

Get Full Pressure Electronic Cooling Water Restored

9/8

9/8

Move DC on EC to access PC1 east

8/31

9/10

Remove failed PC1 east module

9/10

9/14

Install spare PC1 east module

9/10

9/14

Test and commission RPC3N lifting fixtures at factory

7/15

9/11

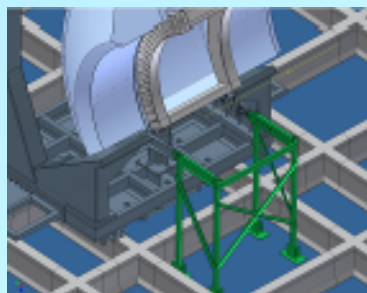
Tasks with slipped starting dates

Task	Start Date	End Date
Plan and install 2 new PHENIX gas pad expansion pads	In progress	9/30
Vendor install Ar dewar & vaporizer	In progress	9/30
Install rails and fences on gas pad	In progress	9/30
Install RPC3 N support base & grout	In progress	9/18
Install Station 3 N pitch control (unistrut rails) on pedestal and east and west gap 5 north walls and attach to support bases (tall column)	In progress	9/18
First $\frac{1}{2}$ octant ready for installation	9/15	9/15
Install RPC3 N $\frac{1}{2}$ Octants (16 days)	9/15	10/30



Tasks for the remainder of September

Task	Start Date	End Date
MuTr Rack 2 troubleshooting	In progress	10/15
MuTr HV and FEE test and evaluation as MuTrigger FEE's & RPC's are installed	In progress	11/30
Install new gap5 N cable & pipe supports, cables and piping and leak test piping	In progress	9/30
Remove station 1 south scaffolding	9/21	9/25
Test PC1 spare and verify operation	9/14	9/17
Move DC on EC back to normal position	9/18	9/18
Reconnect cables and piping on DC and PC1 East	9/21	9/25
Final verification tests on PC1 east repair	9/28	9/30
Remove RPC prototype absorber and support structure	9/15	9/15



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MuTRIG-FEE Status

RIKEN/RBRC

Itaru Nakagawa

Station-1 Status



- Octant-7 Chassis Mount Done (Mike Lenz)
- Plumbing Work Done (Mike Lenz)

Board Installation Station-1



- All boards and blank panels are in.
- Finalize cabling now underway.

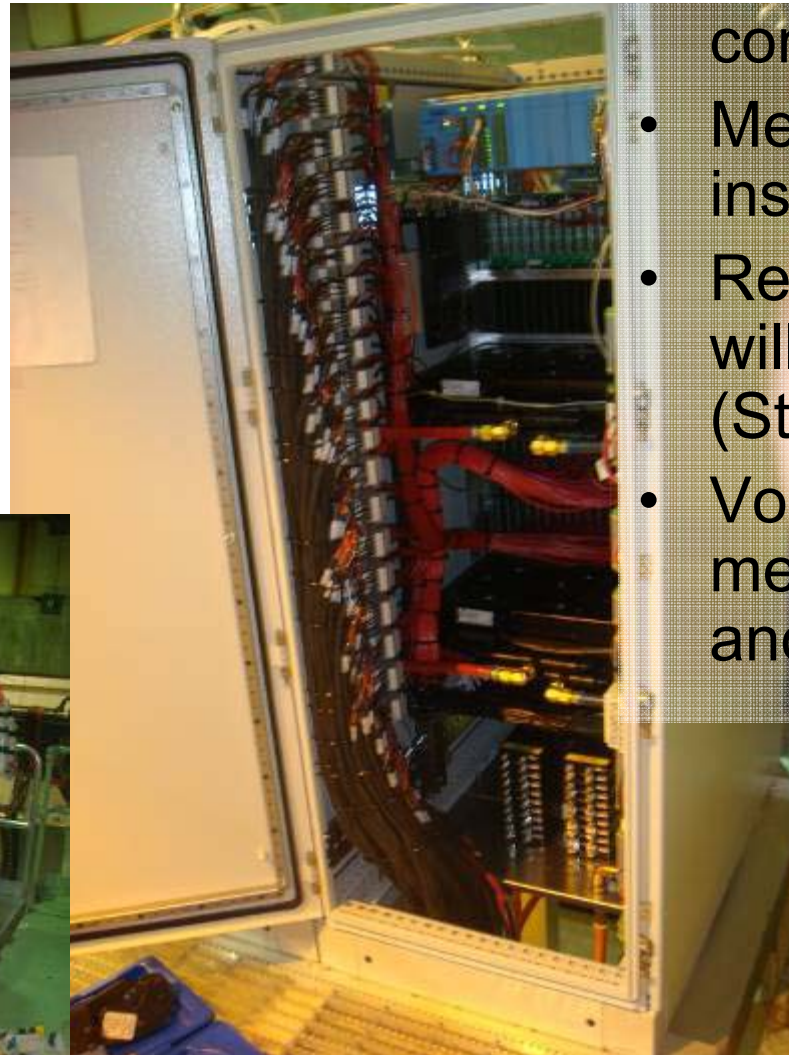
Jimmy

LV Power

- Completed terminal block connections
- Megapack installation
- Remote control will be tested next (Steve)
- Voltage measurement and adjusting



Last week



frank

9/3/2009

Present

LV Distribution Modules



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LV distributor

Required Total	16
Available	11
Missing	5

- 5 + spare cards to be produced (~1 month)

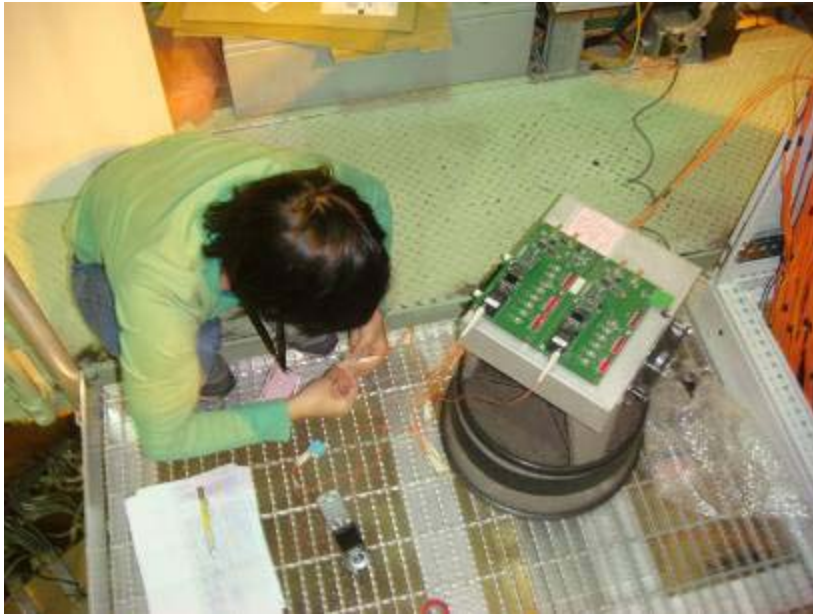
Beam Clock (BCLK) Fanout
50 more optical drivers to be
Delivered. (Steve)

Optical Fiber Connection



- Completed by Seiko & Yoshi

Fiber Chain Test



- Completed chain test for data cables. Found 5 dead trunk cables. (Seiko, Yudai, Ray)
- Arranged repair work with ITD tech on next Thursday (Sept.10).
- Beam Clock (BCLK) cable test is now underway. (Seiko, Ray)

To complete Infrastructure

- Cable Finalizing (Jimmy)
- Run MuTR.S standalone
- Fix bad MUTR.S FEMs (about 5 FEMs)
- Optical
 - Tray install for trunk cable loop.
 - Patch bay install at platform.
 - Trunk cable connection.
 - Fiber connections.
 - PatchBay(rackroom) - PatchBay (Platform) - Chassis Chain test
 - Repair dead cables. (ITD tech)
- LV
 - Megapack Install (Frank)
 - Connection to Terminal Block (Frank) → end of this week
 - Remote control (Steve)
 - LV measurement & tune (MuTRIG-FEE Group)
- Chassis
 - Station-1, Oct-7 Mount (Mike)
 - Finish grounding St-2&St-3
 - Improve grounding configuration (MuTRIG-FEE Group)
 - Plumbing (John+Mike)

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Issues

1. Weak cooling water pressure. No flow in top of octants. FEE operation/functions? → To be modified next Tuesday by CAD techs.
2. John T's Dedication on PAD chamber until next Wednesday + Mike Lenz on vacation → 1 week of no progress in plumbing.
3. DCM error&busy MuTR.S standalone (St-1&St-3).
→ Fixed (John H.)
4. Short of LV distribution modules → Rental from North.

Other Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
Design supports for Beampipe upgrade	7/6	11/30
Fan Tray replacements (as time permits)	7/8	11/30
DCM rack supply & Return plumbing	10/5	10/16
DCM rack internal plumbing	10/19	10/30
Design support for FOCal	7/6	11/30
Design support for FVTX	7/6	11/30
Design & Fabrication support for VTX	7/6	11/30
Test/replace rack transient suppression	7/20	12/1
UPS feeds for GTM and GL1 racks	7/20	12/1
Cordless phones in tunnel	7/20	12/1
Individual relays on all HV supplies	7/20	12/1
SF6 alarm to MCR?	7/20	12/1
More volts to EMCAL FEM's?	7/20	12/1
Revisit LV systemization/standardization of controls, etc.	7/20	12/1
Correct wiring of the DCM crates enables	7/20	12/1
Replace ECB1&2 (ADAM5000s) with a single new ADAM5000E	7/20	12/1
Replacement OPC server computers	7/20	12/1
Replace old PCI type RS485 interface boards with USB-Fiber and Fiber-RS485 system	7/20	12/1



Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
Add single-button ON/OFF controls to some LV GUIs	7/20	12/1
Determine optimal baud rate for EC North RMC	7/20	12/1
Remove the temporary FlatPAC in SMT4 and install two new MegaPACs	7/20	12/1
Install LV Dist modules in MuTrigger S.	7/20	12/1
Remove temporary MegaPAC in sRPC1 rack and install new full MegaPAC and finish controls for it	7/20	12/1
VTX/FVTX LV Dist system evaluation	7/20	12/1
Prep for production of up to 39 boards in 4 crates (VTX/FVTX)	7/20	12/1
VTX/FVTX cooling system interlock design	7/20	12/1
Evaluate possible design for 4x1 GL1 L1 triggers	7/20	12/1
Test direct ethernet implementaion on Maszi's new HV control interface board	7/20	12/1
DCM rack electric prep	8/3	10/30
Rack room re-organization	9/1	11/30
CM Power Upgrade	9/1	11/30

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Expected IR Configuration During Shutdown '09

- Now-10/1 MMS south, CM in run position, EC in AH
WC in west position (against wall), scaffolding
in station 1 and station 2/3 south
- 9/25-11/10 MMS, CM & WC positions TBD, EC in AH
- 11/10-12/1 MMS & CM in run position, EC and WC can be
moved east west ~3 ft

These dates are approximate and subject to change

Final leak test new Ar dewar/vaporizer and Closeout job

8/28

10/4

Troubleshoot MUTr decaps in MMN

7/27

10/15

Troubleshoot MUTrigger FEE's in MMN

7/27

10/15

Close MMN Hatch and closeout WP

9/1

10/15

Remove MMS Sta 2/3 scaffolding

10/12

10/23

Reinstall MMS lampshades (2 days)

10/26

10/30

Replace EC water hoses below EC

8/10

10/15

Install Empties racks on gas pad

9/30

10/4

Disassemble and store PC1 east repair fixture

10/1

10/2

Install 2 RPC3 N racks (1/2 day)

9/8

10/30

Install rack components in RPC3 N racks

9/21

10/31

Attach cables to RPC3 N racks and to Detector $\frac{1}{2}$ octants

10/1

10/30

Install new PHENIX north tunnel thermal/vapor barrier replacing crystal palace (1 week)

10/1

10/30

Commission RPC3 N racks and detectors

10/12

10/30

November Schedule

Task

Start Date

End Date

TECHNICAL SUPPORT NOON

- Install heaters and thermostat(s) for RPC3N thermal control 11/2 11/6
- Reinstall PHENIX North tunnel shielding (3 days) 11/2 11/6
- Cooldown for Run 10 Starts 11/7 11/7
- Move MuID Collars to IR 11/7 11/7
- Disconnect electric & Fiber in EC 11/2 11/7
- Remove ladder & dumb waiter from EC & Fold up EC platforms in AH (1 day) 11/9 11/10
- Veterans Day Holiday - no work 11/11 11/11
- Remove IR Floor plates and move 12 ton cart to AH 11/12 11/12
- Move EC to IR 11/12 11/13
- Reconnect electric and fiber to EC 11/16 11/20
- Reinstall ladder & dumb waiter on EC & Fold down EC platforms in IR (1 day) 11/16 11/20
- Pink sheets, white sheets, blue sheets 11/16 12/1
- Move MMS north, Install MuID Collars 11/23 11/25
- Assemble shield wall base and wall in AH 11/23 11/30
- Thanksgiving Holiday - no work 11/26 11/27
- Roll in shield wall 11/30 11/30
- Start Run 10, All shutdown activities completed 12/1 12/1

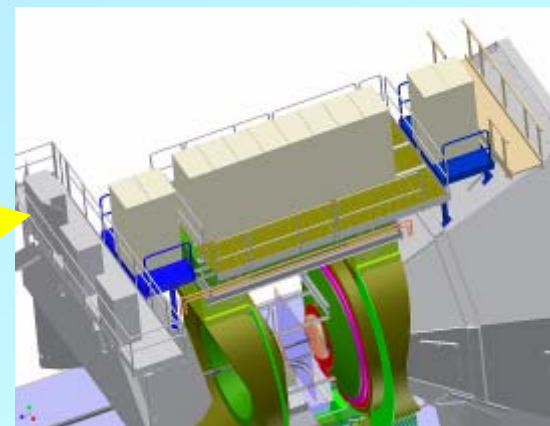


Other potential work this shutdown:

1. Remove the RPC prototype absorber

Confirmed: this to be done while
Station 1 scaffolding is in place

2. Prep Bridge for future upgrades
(if time permits)



DC East Repair Proposal

The DC has several broken wire inside that short quite a large number of good wires and reduce available acceptance of the detector. Usually wires are removed right before the run since new broken wires can appear at any time, most often it happens when electronics is put in 24/7 operation. However, several wires broken on the very top of the DCE are not reachable from the CM lift table or otherwise when EC is in IR.

The repair itself is going to be a standard procedure that involves: 1) light cleaning and cutting of window; 2) removal of broken wires; 3) sealing of the chamber.

To perform the repair a few things are needed:

- 1) Operational DC-PC1 HV system to check the current state of the detector and try to locate broken wires before opening the detector.
- 2) Some support to have an access to the very top of the DCE. One of the possibilities is a man lift (all necessary exams must be taken).
- 3) Some support from the gas mixing house to check that the detector is sealed properly after the repair.

All instruments which are required for the repair are at Stony Brook.

Repair must be performed before October, 25 when DC experts leave to return to Russia.

More work to be scheduled

Purchase and install 2 AC's in
Phenix Gas Mixing House

Suggested model ;

Mcmaster part number: 1817K89
19.5 K btu

Per R. Pisani



2009 Building Maintenance Issues

- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall.: *Roof Repairs underway*
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance: *New AC on order*
- Icy conditions at mixing house north stairs: *See next item*
- Mixing House loose board ?: *See next item*
- General maintenance for Trailer Offices and Gas Mixing House stairs, ramps and siding, gutters, etc. (cleaning and repairing worn/rotted wood): *Carter has placed work orders*



1. Scaffold Inspector training being given at BNL by Steve Kane
9/21 & 9/24
2. Holiday Weekend Coming Up Remember to secure buildings
3. DOE Safeguards and security audit Sep. 14-18.
 - Wear your badge at all times
 - Secure valuables when not in use
 - Secure sensitive information
 - Obey signs barricades, etc.
 - Report suspicious activity to police (x2222 or 911)
 - Report cyber security problems to response team at x8484
4. All techs have more than enough work. Subsystems needing assistance should not attempt to schedule techs directly.
See Carter or me if you need tech assistance.

Where To Find PHENIX Engineering Info



Coming Up:

Lab Holiday

9/7

Labor Day

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

